

Serial No. 10/052,295

Claim 1 (currently amended). The method of providing for a fluid treatment, that includes

- a) providing a treatment zone containing granular activated charcoal ~~in pellet form~~, and
- b) providing a stream of water containing nutrients, contaminant degrading microbes and dissolved oxygen, and
- c) introducing said stream to said treatment zone to effect adsorption of said nutrients and microbes onto the granular activated charcoal, thereby to provide a contaminant treatment matrix, whereby contaminant in fluid flow through the matrix is reduced, and
- d) providing a seeding zone in matrix form upstream of said treatment zone and through which said stream of water is passed prior to its introduction to said treatment zone, to entrain microbes growing in the matrix to which nutrient is supplied.

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Claim 2 (original). The method of claim 1 wherein the granular activated charcoal in said zone has one of the following forms:

- i) pellets
- ii) a mat or mats
- iii) fabric
- iv) a support matrix
- v) adsorption media.

Claim 3 (currently amended). The method of claim 1 including passing a separate treatable aqueous fluid stream into contact with said ~~substances~~ granular activated charcoal, in a treatment path, and recovering treated fluid from said path.

Claim 4 (original). The method of claim 1 wherein said granular activated charcoal is disposed as a porous support media for said nutrients and microbes.

Claim 5 (currently amended). The method of claim 3 including adjusting the pH of the separate fluid stream to between 6.0 and 8.5 prior to said introducing step.

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Claim 6 (currently amended). The method of claim 5 including adjusting the temperature of said separate fluid stream to a level less than 110°F, prior to said introducing step.

Claim 7 (currently amended). The method of claim 1 including adjusting the temperature of said separate fluid stream to a level less than 110°F, prior to said introducing step.

Claim 8 (original). The method of claim 1 including introducing O₂ to said treatment zone.

Claim 9 (original). The method of claim 1 including aerating said treatment zone.

Claim 10 (currently amended). The method of claim 1 including providing a series of said treatment zones, and a said seeding zone upstream of said treatment zones, and from which microbes are supplied in fluid flow to the treatment zones, for adsorption on the granular activated charcoal therein.

Claim 11 (currently amended). The method of claim 1 including passing a separate waste water stream containing toxic contaminants through said matrix, to reduce the concentration of said contaminants.

Claim 12 (currently amended). The method of claim 1 including passing gas transported toxic contaminants through said matrix, to reduce ~~said contamination~~ the concentration of said contaminants.

Claim 13 (currently amended). The method of providing for a fluid treatment, that includes

- a) providing a treatment zone containing granular activated charcoal in pellet form, and
- b) providing a stream of water containing nutrients, contaminant degrading microbes and dissolved oxygen, and
- c) introducing said stream to said treatment zone to effect adsorption of said nutrients and microbes onto the granular activated charcoal, thereby to provide a contaminant treatment matrix, whereby contaminant in fluid flow through the matrix is reduced, and

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d) providing a seeding zone in matrix form upstream of said treatment zone and through which said stream of water is passed prior to its introduction to said treatment zone, to entrain microbes growing in the matrix to which nutrient is supplied.